

**REAL TIME HIGH ACCURACY GEOSPATIAL DATABASE
FOR ONBOARD INTELLIGENT VEHICLE
APPLICATIONS**

ABSTRACT OF THE DISCLOSURE

5 A geospatial database management system is
mounted on a host vehicle and manages geospatial data
relating to a travel path for the host vehicle, the
travel path having one or more lanes. A geospatial
database stores data elements indicative of objects
10 and a location of the objects in three-dimensional
space. The objects have a lane-level resolution and
the location is accurate to within an order of one
decimeter or better. A database manager component is
configured to maintain the data elements in the
15 geospatial database and receive database queries from
a driver assist subsystem configured to assist a
driver of the host vehicle. A query processor is
coupled to the database manager component and to the
geospatial database and is configured to receive the
20 database query from the database manager component.
The query processor queries the geospatial database
and returns query results to the database manager
component. This can be done in real time.